

SP-401S SOLAR RUNWAY EDGE LIGHT



MEDIUM INTENSITY

WHITE/YELLOW

				<p>Compliance: ICAO Annex 14 Vol. I (8th. Edition, July 2018) EASA CS-ADR-DSN FAA AC</p>
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FEATURES

- Operates 365 days on solar energy
- 5-level protection against system failure
- 180 hrs of autonomy

APPLICATION

Medium intensity, combined optics (bi-and omnidirectional), designed for permanent usage at airports located in regions without access to electricity and with high photovoltaic potential.

TECHNICAL SPECIFICATIONS

<p>Optics</p> <ul style="list-style-type: none"> • 1.200 cd (white) / 850 cd (yellow) light output (tested by accredited laboratory) • Combined type, omnidirectional and bidirectional • LED lifespan: 100.000 hrs • Maximum power consumption: 9W • NVG-compatible, Infrared LEDs (optional) • Color: white/yellow • User-replaceable 	<p>Safety & Reliability</p> <ul style="list-style-type: none"> • Five levels of protection against system failure • Secondary power supply: backup battery • Real-time monitoring via ALCMS (Airfield Lighting Control and Monitoring System) • Emergency ON/OFF button 												
<p>Battery</p> <table border="1"> <tr> <td data-bbox="87 1131 319 1276">Standard battery</td> <td data-bbox="319 1131 782 1276"> <ul style="list-style-type: none"> • 2x built-in batteries, user-replaceable, air transportable • Autonomy: 180 hrs (minimum intensity) • Total capacity: 216W (2x9Ah/12V) • Deep-cycle VRLA, 12V/9Ah (available worldwide) • Lifespan: 1.200 cycles (designed for 4-5 years) </td> </tr> <tr> <td data-bbox="87 1276 319 1377">Cyclon battery (Arctic Pack)</td> <td data-bbox="319 1276 782 1377"> <ul style="list-style-type: none"> • 1x built-in battery, user-replaceable, air transportable • Autonomy: 100 hrs (minimum intensity) • Total capacity: 120W (10Ah/12V) • Lifespan: 300 cycles (designed for 10-15 years) </td> </tr> </table>	Standard battery	<ul style="list-style-type: none"> • 2x built-in batteries, user-replaceable, air transportable • Autonomy: 180 hrs (minimum intensity) • Total capacity: 216W (2x9Ah/12V) • Deep-cycle VRLA, 12V/9Ah (available worldwide) • Lifespan: 1.200 cycles (designed for 4-5 years) 	Cyclon battery (Arctic Pack)	<ul style="list-style-type: none"> • 1x built-in battery, user-replaceable, air transportable • Autonomy: 100 hrs (minimum intensity) • Total capacity: 120W (10Ah/12V) • Lifespan: 300 cycles (designed for 10-15 years) 	<p>Environmental Conditions</p> <ul style="list-style-type: none"> • Temperature range: -20 to 50 °C (-4 to 122 °F) Optional: -40 to 80 °C (-40 to 176 °F) • Ingress protection: IP-67 (tested by accredited laboratory) • Impact Resistance: IK-10 (tested by accredited laboratory) • Jet Blast Resistance: 240 kph (tested by accredited laboratory) 								
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<p>Solar Power Supply</p> <ul style="list-style-type: none"> • 20W solar panel, separately installed • Polycrystalline type (optional: monocrystalline) • Lifespan: 15 years • MPPT-Temp / Built-in inverter 12-36V/2A 	<p>Compliance</p> <table border="1"> <tr> <td data-bbox="782 1377 1085 1512">Photometric & Chromaticity</td> <td data-bbox="1085 1377 1505 1512">ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 5.3.9.8 & clause 5.3.9.9, Appendix 1, Figure A1-1b</td> </tr> <tr> <td data-bbox="782 1512 1085 1601">Jet Blast Resistance</td> <td data-bbox="1085 1512 1505 1601">ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1. FAA AC 150/5345-50B dated September 2007, clause 3.2.2</td> </tr> <tr> <td data-bbox="782 1601 1085 1691">Frangibility</td> <td data-bbox="1085 1601 1505 1691">ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9 ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.1.3 FAA AC 150-5345-46E clause 3.4.2.1 FAA AC 150/5220-23, clause 3.2</td> </tr> <tr> <td data-bbox="782 1691 1085 1758">Secondary Power Supply</td> <td data-bbox="1085 1691 1505 1758">ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11</td> </tr> <tr> <td data-bbox="782 1758 1085 1825">CE Declaration of Conformity</td> <td data-bbox="1085 1758 1505 1825">2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1</td> </tr> </table>	Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 5.3.9.8 & clause 5.3.9.9, Appendix 1, Figure A1-1b	Jet Blast Resistance	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1. FAA AC 150/5345-50B dated September 2007, clause 3.2.2	Frangibility	ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9 ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.1.3 FAA AC 150-5345-46E clause 3.4.2.1 FAA AC 150/5220-23, clause 3.2	Secondary Power Supply	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11	CE Declaration of Conformity	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1		
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<p>Control & Monitoring</p> <ul style="list-style-type: none"> • Wireless mesh type network • Operating frequency: 868 MHz (optional 2.4GHz or 433 Mhz) • Operating range: up to 1.5 km, relayed (each light is a repeater) • Operating Modes: Steady / Flashing / Dusk till dawn Visible / Infrared (optional) / Visible + Infrared (optional) • Activation options: Via ALCMS Computer Interface (requires UR-201) Via UR-201 Control & Monitoring Unit Via UR-101 Handheld Controller 													
<p>Casing & Components</p> <ul style="list-style-type: none"> • Materials Dome: glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow Mounting: galvanized steel (optional: marine grade stainless steel) Frangible mounting: aluminum (tested by accredited laboratory) • Detachable antenna • Pressure stabilizing valve, transportation fuse • Battery level indicator • Carrying handle (optional) • Casing lifespan: 15 years • Dimensions (LxWxH): 557 mm x 450 mm x 358 mm • Weight: 12,4 kg 	<p>Accredited Laboratory Testing</p> <table border="1"> <tr> <td data-bbox="782 1780 1085 1892">Photometric & Chromaticity</td> <td data-bbox="1085 1780 1505 1892">Intertek Laboratory</td> </tr> <tr> <td data-bbox="782 1892 1085 1960">Jet Blast Resistance</td> <td data-bbox="1085 1892 1505 1960">Warsaw Institute of Aviation The Laboratory of Aerodynamics</td> </tr> <tr> <td data-bbox="782 1960 1085 2027">Frangibility</td> <td data-bbox="1085 1960 1505 2027">Laborex Research Laboratory</td> </tr> <tr> <td data-bbox="782 2027 1085 2092">Ingress Protection</td> <td data-bbox="1085 2027 1505 2092">EMAG Institute of Innovative Technologies</td> </tr> <tr> <td data-bbox="782 2092 1085 2092">Impact Resistance</td> <td data-bbox="1085 2092 1505 2092">Laborex Research Laboratory</td> </tr> <tr> <td data-bbox="782 2092 1085 2092">Electromagnetic Compatibility</td> <td data-bbox="1085 2092 1505 2092">Military Institute of Armament Technology</td> </tr> </table>	Photometric & Chromaticity	Intertek Laboratory	Jet Blast Resistance	Warsaw Institute of Aviation The Laboratory of Aerodynamics	Frangibility	Laborex Research Laboratory	Ingress Protection	EMAG Institute of Innovative Technologies	Impact Resistance	Laborex Research Laboratory	Electromagnetic Compatibility	Military Institute of Armament Technology
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